# Maintenance data (fuel, oil level, etc.)

## Dimensions and weight

| | | |
|---|---|---|
| Overall length | | 180.3 in. (4580 mm) |
| Overall width | | 70.9 in. (1800 mm) |
| Overall height *1 | 2WD models | 56.1 in. (1425 mm) |
| | AWD models | 56.7 in. (1440 mm) |
| Wheelbase | | 107.4 in. (2730 mm) |
| Tread | Front | 60.4 in. (1535 mm) |
| | Rear | 60.0 in. (1525 mm)*2<br>60.4 in. (1535 mm)*3 |
| Vehicle capacity weight (Occupants + luggage) | | 825 lb. (375 kg) |

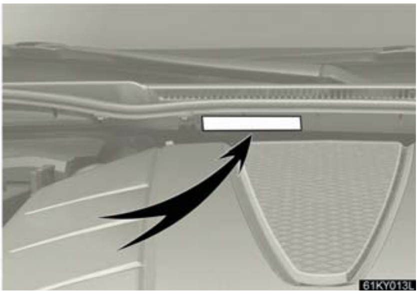
*1: Unladen vehicle
*2: Vehicle with 18-inch tires
*3: Vehicle with tires other than the above on rear wheels

## Vehicle identification

### Vehicle identification number

The vehicle identification number (VIN) is the legal identifier for your vehicle. This is the primary identification number for your Lexus. It is used in registering the ownership of your vehicle.





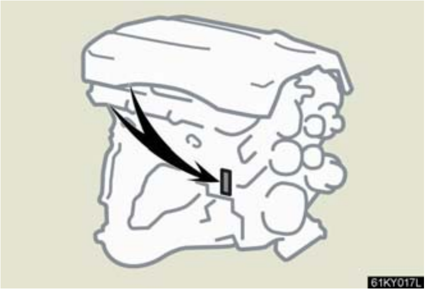

This number is stamped on the top left of the instrument panel and in the engine compartment.




This number is also on the Certification Label.

## Engine number

The engine number is stamped on the engine block as shown.



## Engine

| | IS250 | IS350 |
|---|---|---|
| Model | 4GR-FSE | 2GR-FSE |
| Type | 6-cylinder V type, 4-cycle, gasoline | 6-cylinder V type, 4-cycle, gasoline |
| Bore and stroke | 3.27 × 3.03 in. (83.0 × 77.0 mm) | 3.70 × 3.27 in. (94.0 × 83.0 mm) |
| Displacement | 152.5 cu.in. (2500 $cm^3$) | 210.9 cu.in. (3456 $cm^3$) |
| Drive belt tension | Automatic adjustment | |

## Fuel

| | |
|---|---|
| Fuel type | Unleaded gasoline only |
| Octane rating | 91 (Research octane number 96) or higher |
| Fuel tank capacity (Reference) | 17.2 gal. (65 L, 14.3 Imp. gal.) |

## Lubrication system

| | |
|---|---|
| Oil capacity (Drain and refill — reference*) | |
| without filter | |
| 2WD models | 6.2 qt. (5.9 L, 5.2 Imp. qt.) |
| AWD models | 6.3 qt. (6.0 L, 5.3 Imp. qt.) |
| with filter | |
| 2WD models | 6.7 qt. (6.3 L, 5.5 Imp. qt.) |
| AWD models | 6.8 qt. (6.4 L, 5.6 Imp. qt.) |

*: The engine oil capacity is a reference quantity to be used when changing the engine oil. Warm up and turn off the engine, wait more than 5 minutes, and check the oil level on the dipstick.

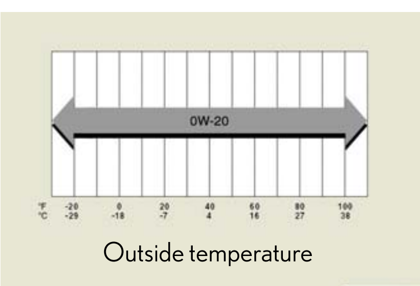
▶ IS250

### Engine oil selection

"Toyota Genuine Motor Oil" is used in your Lexus vehicle. Use Lexus approved "Toyota Genuine Motor Oil" or equivalent to satisfy the following grade and viscosity.

Oil grade: ILSAC GF-5 multigrade engine oil

Recommended viscosity: SAE 0W-20




SAE 0W-20 is the best choice for good fuel economy and good starting in cold weather.

If SAE 0W-20 is not available, SAE 5W-20 oil may be used. However, it must be replaced with SAE 0W-20 at the next oil change.

Oil viscosity (0W-20 is explained here as an example):

- The 0W in 0W-20 indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.
- The 20 in 0W-20 indicates the viscosity characteristic of the oil when the oil is at high temperature. An oil with a higher viscosity (one with a higher value) may be better suited if the vehicle is operated at high speeds, or under extreme load conditions.

How to read oil container label:

The ILSAC (International Lubricant Standardization and Approval Committee) Certification Mark is added to some oil containers to help you select the oil you should use.



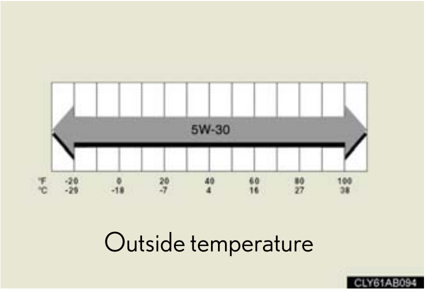

▶ IS350

### Engine oil selection

"Toyota Genuine Motor Oil" is used in your Lexus vehicle. Use Lexus approved "Toyota Genuine Motor Oil" or equivalent to satisfy the following grade and viscosity.

Oil grade: ILSAC GF-5 multigrade engine oil

Recommended viscosity: SAE 5W-30




SAE 5W-30 is the best choice for good fuel economy and good starting in cold weather.

If SAE 5W-30 is not available, SAE 10W-30 oil may be used. However, it should be replaced with SAE 5W-30 at the next oil change.

Oil viscosity (5W-30 is explained here as an example):

- The 5W in 5W-30 indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.
- The 30 in 5W-30 indicates the viscosity characteristic of the oil when the oil is at high temperature. An oil with a higher viscosity (one with a higher value) may be better suited if the vehicle is operated at high speeds, or under extreme load conditions.

How to read oil container label:

The ILSAC (International Lubricant Standardization and Approval Committee) Certification Mark is added to some oil containers to help you select the oil you should use.



## Cooling system

| | |
|---|---|
| Capacity | ▶ IS350<br>9.6 qt. (9.1 L, 8.0 Imp. qt.)<br>▶ IS250<br>10.9 qt. (10.3 L, 9.1 Imp. qt.) |
| Coolant type | Use either of the following.<br>• "Toyota Super Long Life Coolant"<br>• Similar high-quality ethylene glycol-based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology<br>Do not use plain water alone. |

## Ignition system

| | |
|---|---|
| Spark plug | |
| Make | DENSO FK20HBR11 |
| Gap | 0.043 in. (1.1 mm) |

⚠ NOTICE

■ **Iridium-tipped spark plugs**

Use only iridium-tipped spark plugs. Do not adjust gap when tuning the engine.

## Electrical system

| | |
|---|---|
| Battery<br>Open voltage* at 68°F (20°C): | 12.6 — 12.8 V Fully charged<br>12.2 — 12.4 V Half charged<br>11.8 — 12.0 V Discharged<br>(*: Voltage checked 20 minutes after the engine and all the lights are turned off) |
| Charging rates | 5 A max. |

## Differential

▶ Front

| | |
|---|---|
| Oil capacity | 0.74 qt. (0.70 L, 0.61 Imp. qt.) |
| Oil type | Hypoid gear oil API GL-5 |
| Oil viscosity | Above 0°F (-18°C): SAE90<br>Below 0°F (-18°C): SAE80W or SAE80W-90 |

▶ Rear

| | |
|---|---|
| Oil capacity | IS350:<br>1.42 qt. (1.35 L, 1.19 Imp. qt.)<br>IS250:<br>1.20 qt. (1.15 L, 1.01 Imp. qt.) |
| Oil type and viscosity* | Toyota Genuine Differential Gear Oil LT 75W-85 GL-5 or equivalent |

*: Your Lexus vehicle is filled with "Toyota Genuine Differential Gear Oil" at the factory. Use Lexus approved "Toyota Genuine Differential Gear Oil" or an equivalent oil of matching quality that satisfies the above specifications. Please contact your Lexus dealer for further details.

## Automatic Transmission

| | |
|---|---|
| Fluid capacity*<br>IS350 (2WD)<br>IS350 (AWD)<br>IS250 (2WD)<br>IS250 (AWD) | <br>8.3 qt. (7.9 L, 7.0 Imp. qt.)<br>10.6 qt. (10.0 L, 8.8 Imp. qt.)<br>7.9 qt. (7.5 L, 6.6 Imp. qt.)<br>9.9 qt. (9.4 L, 8.3 Imp. qt.) |
| Fluid type | Toyota Genuine ATF WS |

*: The fluid capacity is provided as a reference. If replacement is necessary, contact your Lexus dealer.

**NOTICE**

Using automatic transmission fluid other than "Toyota Genuine ATF WS" may cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage the automatic transmission of your vehicle.

## Brakes

| | |
|---|---|
| Pedal clearance *1<br>IS 350<br>IS 250 | <br>4.13 in. (105 mm) Min.<br>4.3 in. (108 mm) Min. |
| Pedal free play | 0.04 — 0.08 in. (1.0 — 2.0 mm) |
| Brake pad wear limit | 0.04 in. (1.0 mm) |
| Parking brake lining wear limit | 0.04 in. (1.0 mm) |
| Parking brake pedal travel *2 | 7 — 9 clicks |
| Fluid type | SAE J1703 or FMVSS No. 116 DOT 3 |

*1: Minimum pedal clearance when depressed with a force of 110 lbf (490 N, 50 kgf) while the engine is running.

*2: Parking brake pedal travel when depressed with a force of 67.4 lbf (300 N, 30.6 kgf).

## Steering

| | |
|---|---|
| Free play | Less than 1.2 in. (30 mm) |

## Tires and wheels

### Tires and wheels (except for compact spare)

▶ Type A

| | |
|---|---|
| Tire size | 205/55R16 89W |
| Front and rear tire inflation pressure (Recommended cold tire inflation pressure) | Driving under normal conditions<br>Front:<br>35 psi (240 kPa, 2.4 kgf/cm$^2$ or bar)*<br>Rear:<br>38 psi (260 kPa, 2.6 kgf/cm$^2$ or bar)*<br>*: When driving at high speeds above 100 mph (160 km/h), in countries where such speeds are permitted by law, add 5.8 psi (40 kPa, 0.4 kgf/cm$^2$ or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall. |
| Wheel size | 16 × 7JJ |
| Wheel nut torque | 76 ft•lbf (103 N•m, 10.5 kgf•m) |

▶ Type B

| | |
|---|---|
| Tire size | 225/45R17 91V |
| Front and rear tire inflation pressure (Recommended cold tire inflation pressure) | Driving under normal conditions<br>Front:<br>35 psi (240 kPa, 2.4 kgf/cm$^2$ or bar)*<br>Rear:<br>38 psi (260 kPa, 2.6 kgf/cm$^2$ or bar)*<br>*: When driving at high speeds above 100 mph (160 km/h), in countries where such speeds are permitted by law, add 7.2 psi (50 kPa, 0.5 kgf/cm$^2$ or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall. |
| Wheel size | 17 × 8J |
| Wheel nut torque | 76 ft•lbf (103 N•m, 10.5 kgf•m) |

► Type C

| | |
|---|---|
| Tire size | Front tires: 225/45R17 91V<br>Rear tires: 245/45R17 95V |
| Front and rear tire inflation pressure<br>(Recommended cold tire inflation pressure) | Driving under normal conditions<br>Front:<br>35 psi (240 kPa, 2.4 kgf/cm$^2$ or bar)*<br>Rear:<br>38 psi (260 kPa, 2.6 kgf/cm$^2$ or bar)*<br>*: When driving at high speeds above 100 mph (160 km/h), in countries where such speeds are permitted by law, add 10 psi (70 kPa, 0.7 kgf/cm$^2$ or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall. |
| Wheel size | 17 × 8J |
| Wheel nut torque | 76 ft•lbf (103 N•m, 10.5 kgf•m) |

▶ Type D

| | |
|---|---|
| Tire size | Front tires: 225/40R18 88Y<br>Rear tires: 255/40R18 95Y |
| Front and rear tire inflation pressure<br>(Recommended cold tire inflation pressure) | Driving under normal conditions<br>Front:<br>35 psi (240 kPa, 2.4 kgf/cm$^2$ or bar)*<br>Rear:<br>38 psi (260 kPa, 2.6 kgf/cm$^2$ or bar)*<br>*: When driving at high speeds above 100 mph (160 km/h), in countries where such speeds are permitted by law, add 7.2 psi (50 kPa, 0.5 kgf/cm$^2$ or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall. |
| Wheel size | Front wheels: 18 × 8J<br>Rear wheels: 18 × 8 1/2J |
| Wheel nut torque | 76 ft•lbf (103 N•m, 10.5 kgf•m) |

▶ Type E

| | |
|---|---|
| Tire size | Front tires: 225/40R18 88W<br>Rear tires: 255/40R18 95W |
| Front and rear tire inflation pressure<br>(Recommended cold tire inflation pressure) | Driving under normal conditions<br>Front:<br>35 psi (240 kPa, 2.4 kgf/cm$^2$ or bar)*<br>Rear:<br>38 psi (260 kPa, 2.6 kgf/cm$^2$ or bar)*<br>*: When driving at high speeds above 100 mph (160 km/h), in countries where such speeds are permitted by law, add 7.2 psi (50 kPa, 0.5 kgf/cm$^2$ or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall. |
| Wheel size | Front wheels: 18 × 8J<br>Rear wheels: 18 × 8 1/2J |
| Wheel nut torque | 76 ft•lbf (103 N•m, 10.5 kgf•m) |

## Compact spare tire

| | |
|---|---|
| Tire size | ▶ Type A<br>T125/70D17 98M<br>▶ Type B<br>T145/70D17 106M |
| Tire inflation pressure<br>(Recommended cold tire inflation pressure) | 60 psi (420 kPa, 4.2 kgf/cm$^2$ or bar) |
| Wheel size | 17 × 4T |

## Light bulbs

| | Light Bulbs | Bulb No. | W | Type |
|---|---|---|---|---|
| Exterior | Headlights<br>High beam<br>Low/high beam (discharge bulbs)<br>Low beam (halogen bulbs) | <br>9005<br>D4S<br>H11 | <br>60<br>35<br>55 | <br>D<br>A<br>B |
| | Front turn signal lights | — | 21 | C |
| | Parking lights (vehicles with halogen headlights) | 168 | 5 | E |
| | Front fog lights | H11 | 55 | B |
| | Rear turn signal lights | 7440 | 21 | E |
| | Back-up lights | 921 | 16 | E |
| | Outer foot lights | — | 5 | E |
| Interior | Vanity lights | — | 8 | E |
| | Trunk light | — | 5 | F |
| | Interior lights<br>Front<br>Rear | — | <br>5<br>3 | <br>E<br>F |
| | Overhead courtesy lights | — | 3 | F |
| | Front door courtesy lights | — | 5 | E |

A: D4S discharge bulbs
B: H11 halogen bulbs
C: Wedge base bulbs (amber)
D: HB3 halogen bulbs
E: Wedge base bulbs (clear)
F: Double end bulbs

# Fuel information

Your vehicle must use only unleaded gasoline.

▶ IS250

Premium unleaded gasoline with an octane rating of 91 (Research Octane Number 96) or higher required for optimum engine performance. If 91 octane cannot be obtained, you may use unleaded gasoline with an octane rating as low as 87 (Research Octane Number 91). Use of unleaded gasoline with an octane rating lower than 91 may result in engine knocking. Persistent knocking can lead to engine damage and should be corrected by refueling with higher octane unleaded gasoline.

▶ IS350

Premium unleaded gasoline with an octane rating of 91 (Research Octane Number 96) or higher required for optimum engine performance. If 91 octane cannot be obtained, you may use unleaded gasoline with an octane rating as low as 87 (Research Octane Number 91). Use of unleaded gasoline with an octane rating lower than 91 may result in engine knocking and significantly reduced performance. Persistent knocking can lead to engine damage and should be corrected by refueling with higher octane unleaded gasoline.

At minimum, the gasoline you use should meet the specifications of ASTM D4814 in the U.S.A. and CGSB3.5-M93 in Canada.

## ■ Fuel tank opening for unleaded gasoline

To help prevent incorrect fueling, your Lexus has a fuel tank opening that only accommodates the special nozzle on unleaded fuel pumps.

## ■ If your engine knocks

- Consult your Lexus dealer.
- You may occasionally notice light knocking for a short time while accelerating or driving uphill. This is normal and there is no need for concern.

## Gasoline quality

In very few cases, driveability problems may be caused by the brand of gasoline you are using. If driveability problems persist, try changing the brand of gasoline. If this does not correct the problem, consult your Lexus dealer.

## Gasoline quality standards

- Automotive manufacturers in the US, Europe and Japan have developed a specification for fuel quality called World-Wide Fuel Charter (WWFC) that is expected to be applied worldwide.
- The WWFC consists of four categories that are based on required emission levels. In the US, category 4 has been adopted.
- The WWFC improves air quality by lowering emissions in vehicle fleets, and customer satisfaction through better performance.

## Lexus recommends the use of gasoline containing detergent additives

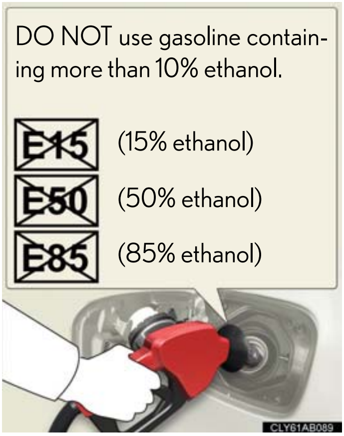
- Lexus recommends the use of gasoline that contains detergent additives to avoid build-up of engine deposits.
- All gasoline sold in the U.S.A. contains minimum detergent additives to clean and/or keep clean intake systems, per EPA's lowest additives concentration program.
- Lexus strongly recommends the use of Top Tier Detergent Gasoline. For more information on Top Tier Detergent Gasoline and a list of marketers, please go to the official website www.toptiergas.com.

## Lexus recommends the use of cleaner burning gasoline

Cleaner burning gasoline, including reformulated gasoline that contains oxygenates such as ethanol or MTBE (Methyl Tertiary Butyl Ether) is available in many areas.

Lexus recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions and improve air quality.

■ **Lexus does not recommend blended gasoline**




- Use only gasoline containing a maximum of 10% ethanol.

  DO NOT use any flex-fuel or gasoline that could contain more than 10% ethanol, including from any pump labeled E15, E30, E50, E85 (which are only some examples of fuel containing more than 10% ethanol).

- If you use gasohol in your Lexus, be sure that it has an octane rating no lower than 87.
- Lexus DOES NOT recommend the use of gasoline containing methanol.

■ **Lexus does not recommend gasoline containing MMT**

Some gasoline contains octane enhancing additive called MMT (Methylcyclopentadienyl Manganese Tricarbonyl).

Lexus DOES NOT recommend the use of gasoline that contains MMT. If fuel containing MMT is used, your emission control system may be adversely affected.

The malfunction indicator lamp on the instrument cluster may come on. If this happens, contact your Lexus dealer for service.

NOTICE

**Notice on fuel quality**

- Do not use improper fuels. If improper fuels are used the engine will be damaged.
- Do not use leaded gasoline.
  Leaded gasoline can cause damage to your vehicle's three-way catalytic converters causing the emission control system to malfunction.
- Do not use gasohol other than that stated here.
  Other gasohol may cause fuel system damage or vehicle performance problems.
- IS250: Use of unleaded gasoline with an octane rating lower than 91 may result in engine knocking. Persistent knocking can lead to engine damage and should be corrected by refueling with higher octane unleaded gasoline.
- IS350: Use of unleaded gasoline with an octane rating lower than 91 may result in engine knocking and significantly reduced performance. Persistent knocking can lead to engine damage and should be corrected by refueling with higher octane unleaded gasoline.

**Fuel-related poor driveability**

If after using a different type of fuel, poor driveability is encountered (poor hot starting, vaporization, engine knocking, etc.), discontinue the use of that type of fuel.

**When refueling with gasohol**

Take care not to spill gasohol. It can damage your vehicle's paint.

# Tire information

**Typical tire symbols**

▶ Standard tire




▶ Compact spare tire




1 Tire size (→P. 532)

2 DOT and Tire Identification Number (TIN) (→P. 532)

3 Location of treadwear indicators (→P. 406)

4 Tire ply composition and materials

Plies are layers of rubber-coated parallel cords. Cords are the strands which form the plies in a tire.

5 Radial tires or bias-ply tires

A radial tire has “RADIAL” on the sidewall. A tire not marked “RADIAL” is a bias-ply tire.

6 TUBELESS or TUBE TYPE

A tubeless tire does not have a tube and air is directly filled in the tire. A tube type tire has a tube inside the tire and the tube maintains the air pressure.

7 Load limit at maximum cold tire inflation pressure (→P. 413)

8 Maximum cold tire inflation pressure (→P. 520)

This means the pressure to which a tire may be inflated.

9 Uniform tire quality grading

For details, see “Uniform Tire Quality Grading” that follows.

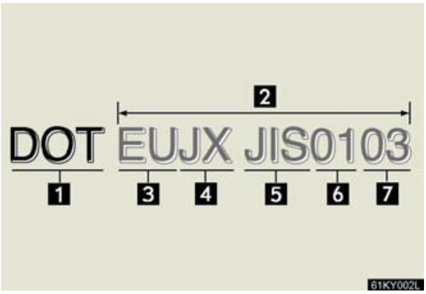
10 Summer tire or all season tire (→P. 413)

An all season tire has “M+S” on the sidewall. A tire not marked “M+S” is a summer tire.

11 “TEMPORARY USE ONLY” (→P. 487)

A compact spare tire is identified by the phrase “TEMPORARY USE ONLY” molded into its sidewall. This tire is designed for temporary emergency use only.

## Typical DOT and tire identification number (TIN)

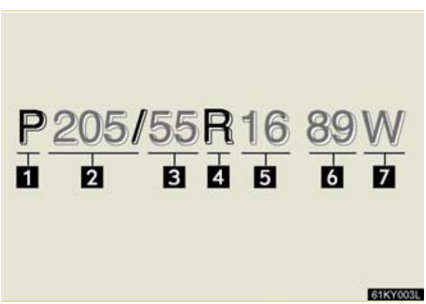



1. DOT symbol*
2. Tire Identification Number (TIN)
3. Tire manufacturer's identification mark
4. Tire size code
5. Manufacturer's optional tire type code (3 or 4 letters)
6. Manufacturing week
7. Manufacturing year

*: The DOT symbol certifies that the tire conforms to applicable Federal Motor Vehicle Safety Standards.

## Tire size

### Typical tire size information




The illustration indicates typical tire size.

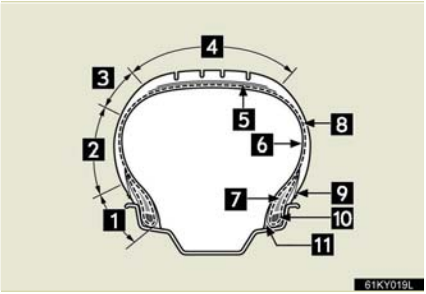
1. Tire use
   (P = Passenger car,
   T = Temporary use)
2. Section width (millimeters)
3. Aspect ratio
   (tire height to section width)
4. Tire construction code
   (R = Radial, D = Diagonal)
5. Wheel diameter (inches)
6. Load index (2 or 3 digits)
7. Speed symbol
   (alphabet with one letter)

■ Tire dimensions




1 Section width
2 Tire height
3 Wheel diameter

## Tire section names




1 Bead
2 Sidewall
3 Shoulder
4 Tread
5 Belt
6 Inner liner
7 Reinforcing rubber
8 Carcass
9 Rim lines
10 Bead wires
11 Chafer

## Uniform Tire Quality Grading

This information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation.
It provides the purchasers and/or prospective purchasers of Lexus vehicles with information on uniform tire quality grading.

Your Lexus dealer will help answer any questions you may have as you read this information.

## DOT quality grades

All passenger vehicle tires must conform to Federal Safety Requirements in addition to these grades. Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example: Treadwear 200 Traction AA Temperature A

## Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course.

For example, a tire graded 150 would wear one and a half (1 - 1/2) times as well on the government course as a tire graded 100.
The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

## Traction AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.

A tire marked C may have poor traction performance.

Warning: The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include cornering (turning) traction.

### Temperature A, B, C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure.

The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109.

Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grades for this tire are established for a tire that is properly inflated and not overloaded.
Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

## Glossary of tire terminology

| Tire related term | Meaning |
|---|---|
| Accessory weight | The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not) |
| Cold tire inflation pressure | Tire pressure when the vehicle has been parked for three hours or more, or has not been driven more than 1 mile or 1.5 km under that condition |
| Curb weight | The weight of a motor vehicle with standard equipment, including the maximum capacity of fuel, oil and coolant, and if so equipped, air conditioning and additional weight optional engine |

| Tire related term | Meaning |
|---|---|
| Maximum inflation pressure | The maximum cold inflated pressure to which a tire may be inflated, shown on the sidewall of the tire |
| Maximum loaded vehicle weight | The sum of:<br>(a) Curb weight<br>(b) Accessory weight<br>(c) Vehicle capacity weight<br>(d) Production options weight |
| Normal occupant weight | 150 lb. (68 kg) times the number of occupants specified in the second column of Table 1* that follows |
| Production options weight | The combined weight of installed regular production options weighing over 5 lb. (2.3 kg) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim |
| Vehicle capacity weight (Total load capacity) | The rated cargo and luggage load plus 150 lb. (68 kg) times the vehicle's designated seating capacity |
| Occupant distribution | Distribution of occupants in a vehicle as specified in the third column of Table 1* below |
| Recommended inflation pressure | Cold tire inflation pressure recommended by a manufacturer. |
| Rim | A metal support for a tire or a tire and tube assembly upon which the tire beads are seated |
| Rim diameter (Wheel diameter) | Nominal diameter of the bead seat |
| Rim size designation | Rim diameter and width |
| Rim type designation | The industry manufacturer's designation for a rim by style or code |

| Tire related term | Meaning |
|---|---|
| Rim width | Nominal distance between rim flanges |
| Vehicle maximum load on the tire | The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight, and dividing by two |
| Vehicle normal load on the tire | The load on an individual tire that is determined by distributing to each axle its share of curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1* below), and dividing by two |
| Weather side | The surface area of the rim not covered by the inflated tire |

| Tire related term | Meaning |
|---|---|
| Bead | The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim |
| Bead separation | A breakdown of the bond between components in the bead |
| Bias ply tire | A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread |
| Carcass | The tire structure, except tread and sidewall rubber which, when inflated, bears the load |
| Chunking | The breaking away of pieces of the tread or sidewall |
| Cord | The strands forming the plies in the tire |
| Cord separation | The parting of cords from adjacent rubber compounds |
| Cracking | Any parting within the tread, sidewall, or innerliner of the tire extending to cord material |
| CT | A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire |
| Extra load tire | A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire |
| Groove | The space between two adjacent tread ribs |
| Innerliner | The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire |
| Innerliner separation | The parting of the innerliner from cord material in the carcass |

| Tire related term | Meaning |
|---|---|
| Intended outboard side-wall | (a) The sidewall that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other side-wall of the tire, or<br>(b) The outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle |
| Light truck (LT) tire | A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles |
| Load rating | The maximum load that a tire is rated to carry for a given inflation pressure |
| Maximum load rating | The load rating for a tire at the maximum permissible inflation pressure for that tire |
| Maximum permissible inflation pressure | The maximum cold inflation pressure to which a tire may be inflated |
| Measuring rim | The rim on which a tire is fitted for physical dimension requirements |
| Open splice | Any parting at any junction of tread, sidewall, or innerliner that extends to cord material |
| Outer diameter | The overall diameter of an inflated new tire |
| Overall width | The linear distance between the exteriors of the side-walls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs |
| Passenger car tire | A tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10000 lb. or less. |
| Ply | A layer of rubber-coated parallel cords |

| Tire related term | Meaning |
|---|---|
| Ply separation | A parting of rubber compound between adjacent plies |
| Pneumatic tire | A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load |
| Radial ply tire | A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread |
| Reinforced tire | A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire |
| Section width | The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands |
| Sidewall | That portion of a tire between the tread and bead |
| Sidewall separation | The parting of the rubber compound from the cord material in the sidewall |
| Snow tire | A tire that attains a traction index equal to or greater than 110, compared to the ASTM E-1136 Standard Reference Test Tire, when using the snow traction test as described in ASTM F-1805-00, Standard Test Method for Single Wheel Driving Traction in a Straight Line on Snow-and Ice-Covered Surfaces, and which is marked with an Alpine Symbol (  ) on at least one sidewall |
| Test rim | The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire |
| Tread | That portion of a tire that comes into contact with the road |

| Tire related term | Meaning |
|---|---|
| Tread rib | A tread section running circumferentially around a tire |
| Tread separation | Pulling away of the tread from the tire carcass |
| Treadwear indicators (TWI) | The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread |
| Wheel-holding fixture | The fixture used to hold the wheel and tire assembly securely during testing |

*: Table 1 — Occupant loading and distribution for vehicle normal load for various designated seating capacities

| Designated seating capacity, Number of occupants | Vehicle normal load, Number of occupants | Occupant distribution in a normally loaded vehicle |
|---|---|---|
| 2 through 4 | 2 | 2 in front |
| 5 through 10 | 3 | 2 in front, 1 in second seat |
| 11 through 15 | 5 | 2 in front, 1 in second seat, 1 in third seat, 1 in fourth seat |
| 16 through 20 | 7 | 2 in front, 2 in second seat, 2 in third seat, 1 in fourth seat |